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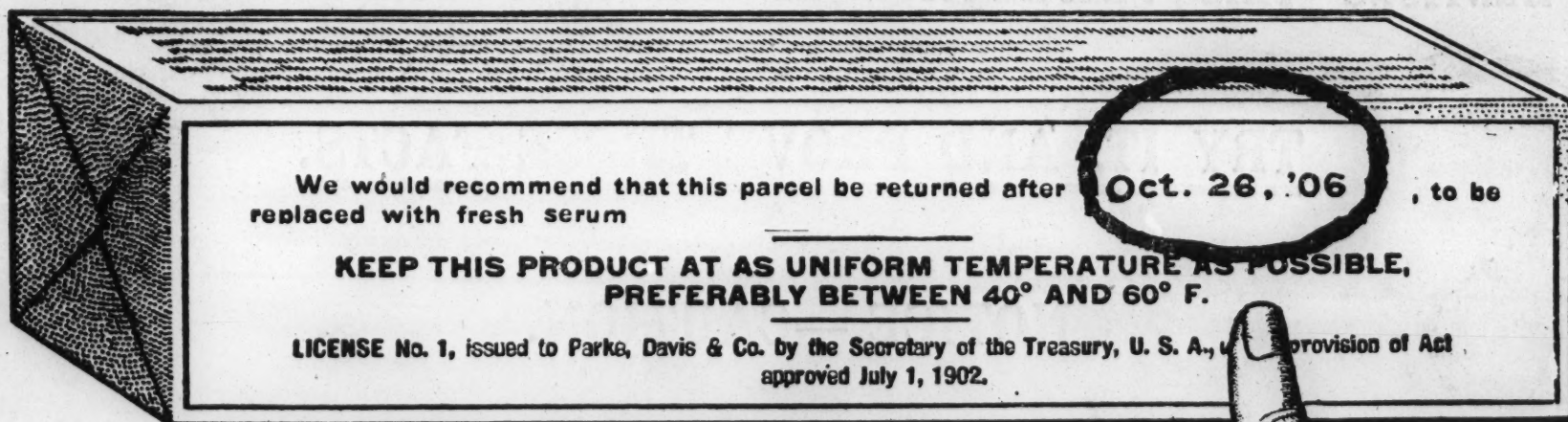
JAN., 1906

THE CALIFORNIA MEDICAL JOURNAL

D. MACLEAN, M. D., EDITOR

PUBLISHED MONTHLY

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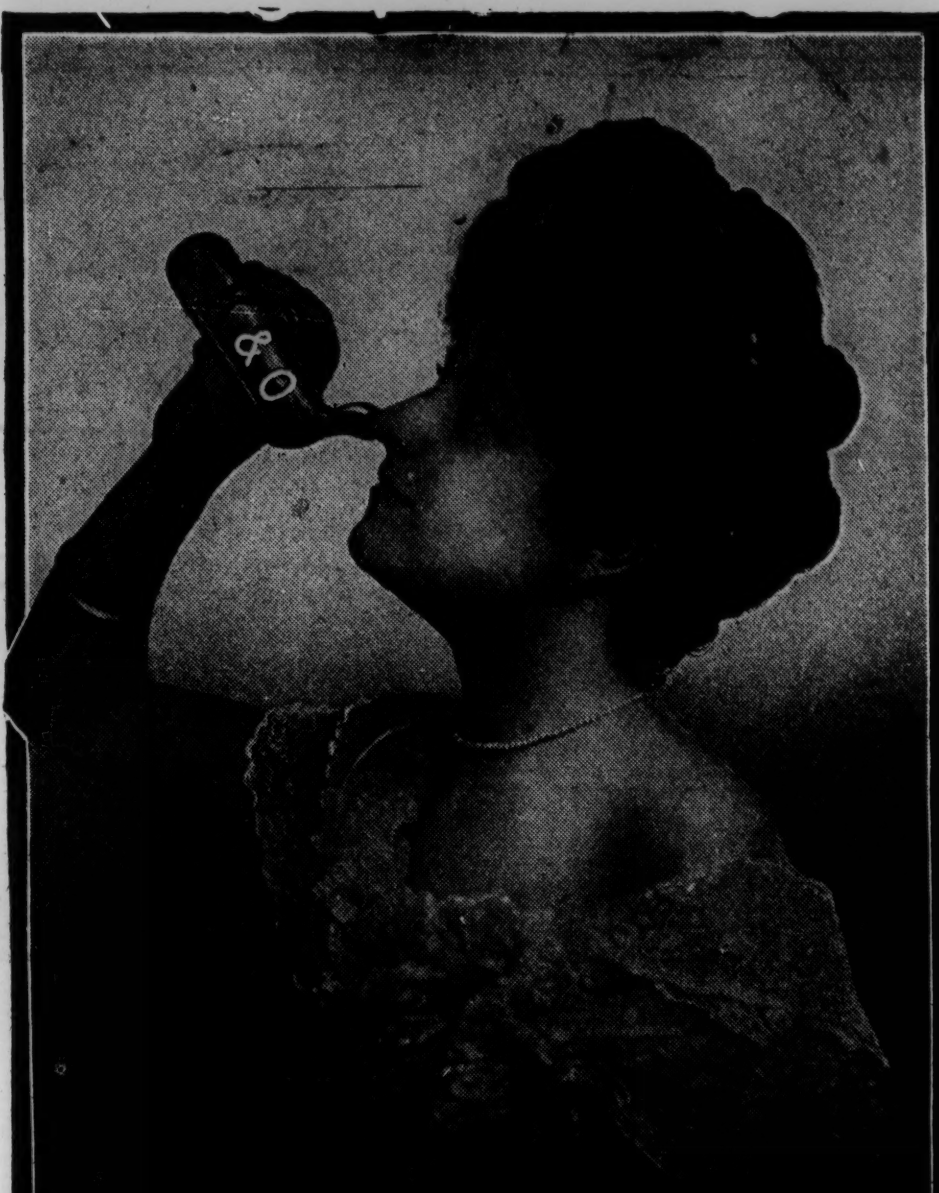
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3d ed., p. 127.)

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CALIFORNIA MEDICAL JOURNAL.

VOL. XXVII.

JANUARY, 1906.

No. 1.

The New Chemic Theories,

W. C. BAILEY, PH.G., PH.D., M.D., D.O.

(Third Paper.)

WHILE ions have been classified into anions and kations, it is held by many, and with much show of reason, that there is no such real division, but that each of these minute bodies has within itself both the negative positive properties which give rise to the dual terms. Of course, at this point there is the never ending clash between the adherents of the dualistic and monistic theories of the origin of matter. But as chemists in their analysis of matter simply go step by step and resolve the complex into the simpler forms, it will suffice for the present to recognize the two classes of ions, even though the anions and kations may be identical in themselves and may be the ultimate particles of matter. In this case the cause of differentiation into positive and negative must be sought for in the character of the energy which sets them

into vibration. This also presupposes at least two phases of energy, giving us again a fourfold classification of the sources of matter as well as the fourfold classification of the states of matter.

In considering the forms of waves having a common center, as those caused by dropping a pebble into a pool of water, it was observed that the ascent of the wave was much sharper than the descent. This tendency to rapid evolution to the crest and slower return to the trough of the wave is also found in the development of the double vortex. Figure 8 (in the second paper) shows a double vortex with a straight line for its axis. If now the ions in their vibration follow the universal course of nature they will trace spiral convolutions around a vortical skeleton the axis of which is a curve. The greater activity will be first observed

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swinging out into a rounded dome. The extreme limit having been reached the return to the anodal end becomes more gradual and the return to the center of activity gives the first completed form of the atom, fig. 10. Prof. Crookes in an address before the Chemical Congress in Berlin, said: "It ap-

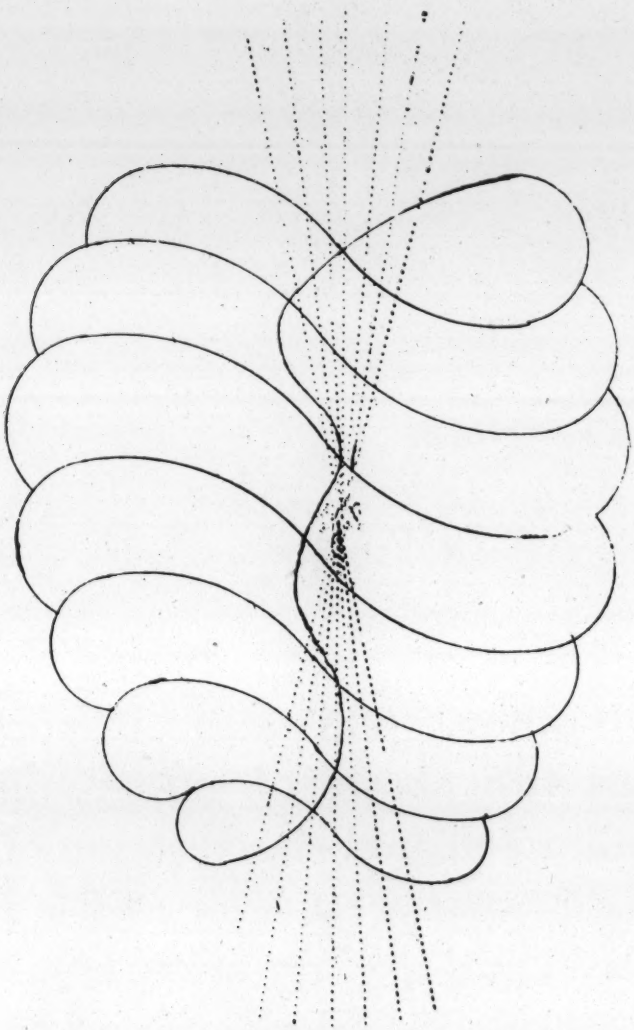


Fig. 10.

pears that each atom is a whole stellar system of infinitely smaller, but absolutely identical units, all in orbital motion."

The difference between the atoms of the various elements seems to be based primarily upon the difference in the number of ions in its particular stellar system, as for instance the hydrogen atom contains 700 ions (fig. 11) while 11,200 ions in one system form an atom of oxygen. Nitrogen requires about 9700 ions for its system. If 137,000 ions are grouped properly they will form a single atom of gold, while

radium requires 180,000 ions. A coincidence is found between the proportion of the number of ions in the atoms of the various elements and their atomic weights. If the number of ions in hydrogen (700) be multiplied by the atomic weight of any given element it will give approximately the number of ions in its atom.

The great number of ions in the radium atom give a clue to the peculiar

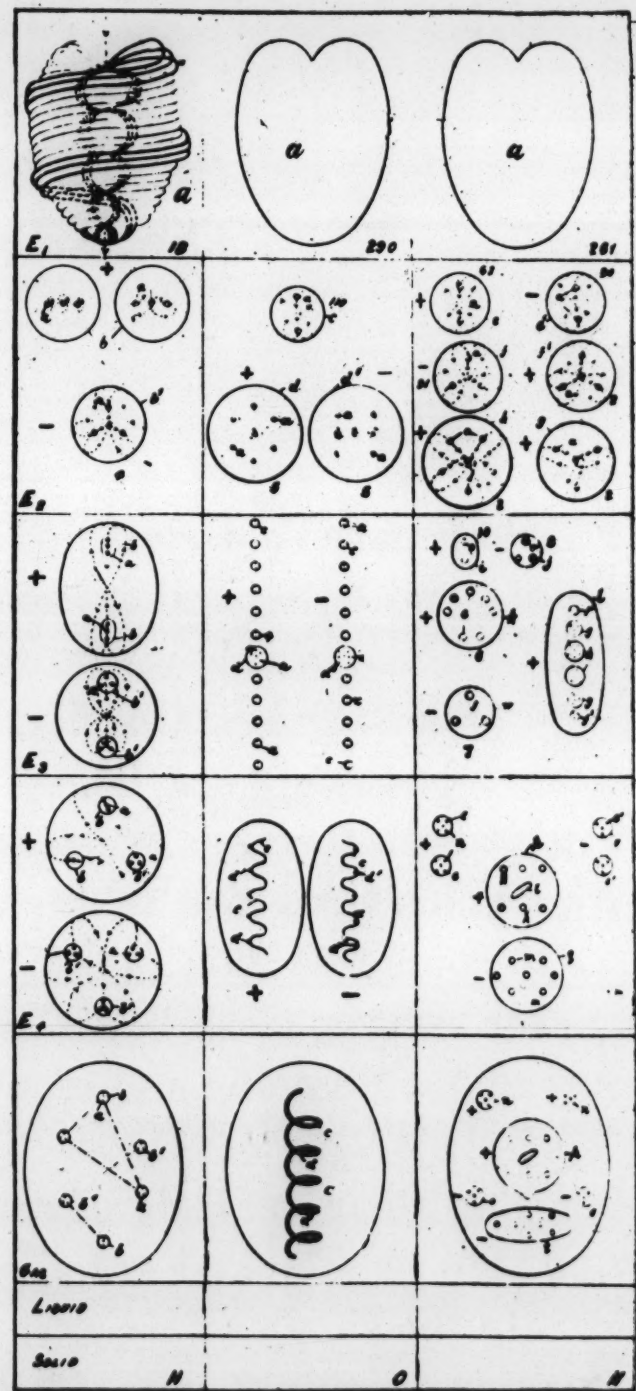


Fig. 11.

radio-activity of that element. The intensely rapid vibration necessary to cause the homogeneity of the atom gives rise to the etheric waves which are recognized by the retina as light. In its intensity of motion the radium atom

seems to have emanations of more than one kind of rays, the source of which has not yet been definitely traced. In the progress of some of the recent experiments of Mme. Currie and Prof. Lodge there seems to have been transmutations from radium to polonium and helium, thus reviving the hope of the old alchemist for the general transmutation of elements.

Radium is not the only radio-active substance, but that characteristic is shared by uranium, zinc-blende and other minerals, all of which have a relatively heavy atomic weight.

While the difference in the elements seems to be principally due to the number of ions in the primal atom of each there is also a proportionate difference in the form of the wave or vibration, as well as the rate of vibration. The difference in the rate of vibration in the violin string will give the corresponding difference in pitch. If, however, we have two strings of different lengths and weight, yet both vibrating with the same frequency, we will have the same tone from both strings but of a different quality or fullness; so with elements having the same atomic weights and presumably the same number of ions, such as fluorine and argon each weighing 19, nickel and cobalt weighing 58.6, we have quite different chemical characteristics, and yet a great physical similarity. This similarity also extends to elements having nearly the same atomic weights, such as tin and antimony, 118 and 119; manganese and iron, 54.8 and 55.8; sodium and magnesium, 23 and 24. This similarity and yet greater diver-

gence is particularly noticeable in the great variety of organic isomerides (fig. 12). In the organic compounds

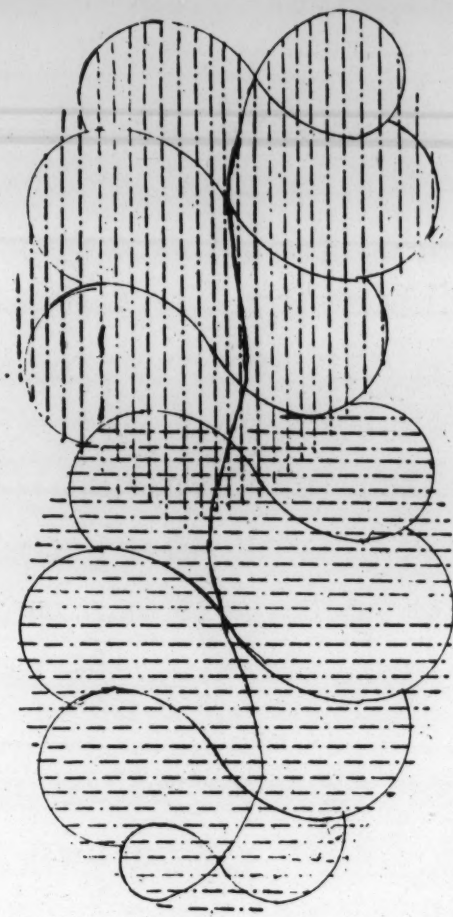


Fig. 12.

the difference is laid to the different grouping of the identical atoms in the

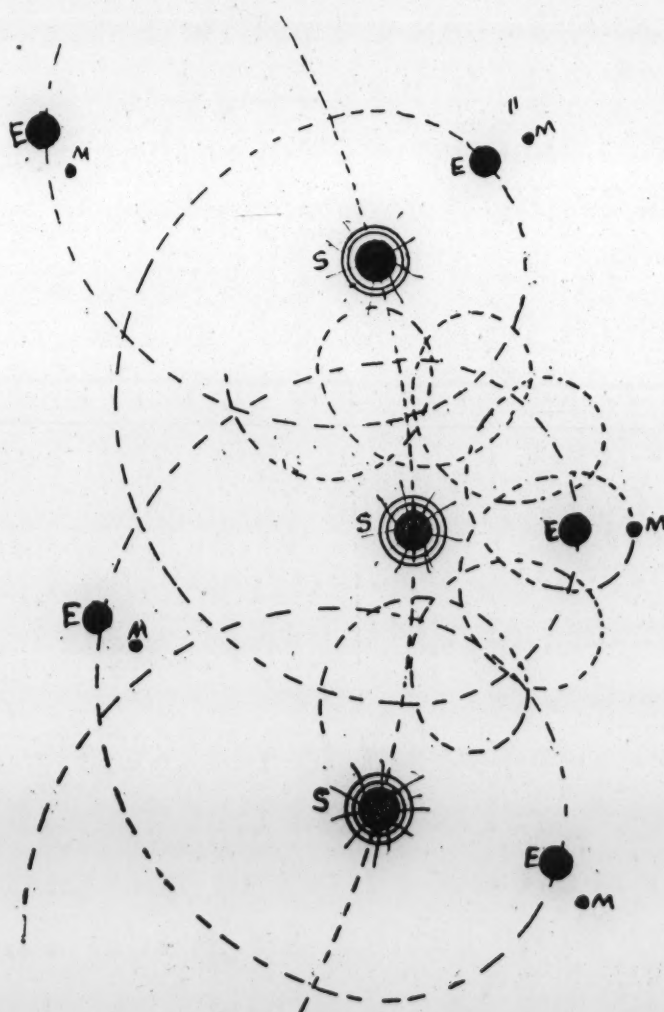


Fig. 13.

various molecule. Presumably we may also find the difference of atoms may

be largely due to the different groupings of the ions, as shown in figure 11. In the grouping of molecules there may be the simple merging of two atoms (fig. 12) forming a molecule of an element, or an actual blending of the spirals in the infinite variety of compound molecules. An attempt is made in the ordinary graphic formulæ to explain these different groupings, but the attempt can only be a diagram, never a true picture of the actual relation of the atoms, so in these illustrations no attempt has been made at a picture, but only a diagram showing the theoretical relation.

Professor Crookes' allusion to the atom as a stellar system is a very apt illustration, as will be seen by comparing figures 9 (second paper) with fig. 13, showing the path of the moon around the earth, the earth around the sun and the sun around its distant center. While it may not yet be time to refer to the solar system as the "Mighty Atom," still it is well to bear in mind that the same laws in physics govern the small bodies as well as the greater bodies, and the new chemic theories are simply applying the well known laws that govern the gross construction of matter in a similar manner to the governing of the intimate construction of matter.

Referring again to radio-active elements, it will be noted that those showing the greater energy in this particular are those having the greater atomic weight and consequently the greater number of ions in the atom. Here is seen a correspondence to the law of etheric vibrations. The slowest etheric

vibration recognized is 14 waves per second and is perceived by the sense of hearing. In the realm of sound the pitch gradually increases with the frequency of vibrations until at about 50 vibrations per second we have the lowest note of the human voice. The highest soprano voice may reach to about 1500 vibrations per second. The highest note used in the modern orchestra is that of the piccolo with 4752 vibrations per second, and the highest sound which the human ear is capable of perceiving is the chirp of a cricket with its 40,000 vibrations. Between the realm of sound and that of light there is a tremendous gap which has not yet been identified with any of the phenomena of nature. It is possible that somewhere in this gap will be found the vibrations which lead directly to the formation of the atom from the ion. That such a theory may be correct is evident from the fact that many of the heavier elements emit both light and heat without apparent loss of substance.

The slowest etheric vibration producing the phenomenon of light is 451,000,000,000,000, per second, giving a dull red glow which emits the greatest heat of any in the spectrum, but has the least actinic (chemic?) power. As we ascend the scale through the orange, yellow, green, blue indigo and violet, the heat decreases and the actinic power increases in proportion to the acceleration of the vibrations until at the extreme limit of light, the ultra violet (Frauenhofer's line H) there are 789,000,000,000,000 vibrations per second. It has long been recognized that

there are actinic rays beyond the ultra violet which the retina is incapable of perceiving. As the comparatively slow etheric vibrations of sound are capable of producing form, and as the relatively high vibrations produce light and color, it is perfectly in line with the observed actions of the laws of physics to suppose that these vibrations in the gap mentioned may result in the growth of the atom, and that the acceleration of the motion in the heavier atoms such as radium result in the evolution of heat and light.

Light and sound are produced by vibrations of ether; the question naturally arises "what is ether? According to the new chemic theory atoms are produced by the vibration of ions; again the question naturally arises "what are ions?" At the beginning of these articles the definition of ether was given as "matter of extreme tenuity and supposed to pervade all space, the interior of solid bodies not excluded. Its elasticity is unlimited, and because of this elasticity is capable of transmitting all of the various phenomena of energy." Accepting this classic, and as yet unchallenged definition of energy, it would seem perfectly logical to define the ion as the ultimate unit of ether. But to do this would be a return to the old

and discarded theory that light, heat and sound were fluids having actual substance. Without attempting at the present time to re-open that old problem, it may be well to call attention to two diametrically opposed statements made by Professors Tyndall and Crookes. Prof. Tyndall, about thirty years ago, stated, before the Royal Polytechnic in London, that he believed there would yet be discovered in matter the reason and cause of all the phenomena then known as energy. Twenty-five years later, speaking from the same platform, Prof. Crookes quoted this statement and paraphrased it by saying that he believed there would yet be discovered in the various phenomena of energy the reason and cause for the existence of matter. The later discoveries of Prof. Crookes, Prof. Lodge, Mme. Currie and their coworkers seem to blend these two opposing statements into one and to give a reasonable foundation for the theories that matter and energy are simply different phases of the one primordial source, be that source matter or energy or neither, but something yet to be determined.

(The spiral form of the evolution of mineral, vegetable and animal life, corresponding to the spiral development of the atom will be considered in the concluding paper next month.)

Alcohol—Food or Medicine,

F. G. DE STONE, M. D.

ALCOHOL, which forms an integral part of the body, must be a product of digestion. It has been pretty clearly shown that all of the conversion

of carbohydrates into fuel for the system is one of alcoholic distillation and I do not know but that I am ready to believe that the whole process of nutrition

is one and the same process; in other words, everyone is a walking distillery.

We do know that persons who habitually over-indulge in the good things of the table exhibit the same signs of congestion as those arising from alcoholism. The red, blotched skin, and blossoming nose, purplish cheeks, congested large liver, or atrophic hard and useless, bloodshot eyes, labored breathing, etc.

I wish to quote from Major Charles Woodruff's article on alcohol in the tropics, published in the Medical Record of December 17, 1905. "Biologists are pretty well agreed now that animal cells and vegetable cells are not essentially different, except in their method of obtaining food. The protoplasm is the same in each kind of cells, the functions are alike, and food is used in similar ways. Plant physiologists are coming to the opinion that a plant cell cannot utilize the hydrocarbon derived from the leaf activities until it has changed them into alcohol by means of an enzyme, an action identically the same as that of the yeast plant in which an enzyme does the work of fermentation. Animal physiologists are now startling us out of our wits by a similar disquieting series of facts, pointing out the same as to animal cells. In the higher animals the pancreas cells have been specialized to produce this enzyme, which attacks the digested carbohydrates received into the blood, and changes them into alcohol."

The body cells, like the plant cells, are wholly incapable of utilizing as a fuel any carbohydrate except alcohol, and if the pancreas is so diseased as to

be unable to produce its enzyme, or if it is extirpated, all these sugars drain off through the kidneys, producing one form of diabetes. The organism though bathed in good fuel, is unable to use it, and it dies of lack of energy, unless the diet is so arranged as to present to the cells protein fuel which they can use. (Dr. Carl Ramus in the Journal of the American Medical Association, Feb. 6, 1904.) In other words, we get nearly all of our energy from alcohol manufactured in the body in tiny non-poisonous doses.

Dr. Woodruff goes on to show the necessity for alcohol in the tropics, and furnishes data showing that even "old soaks" live longer than total abstainers in this climate. His article is a scathing arraignment of those who dogmatically adhere to a statement long after it has been proven false, simply because fathers or the books held to that opinion.

We often hear the statement: "It is possible in time we shall gain knowledge enough of the processes of the body, to be able to manufacture foods so completely reduced, and ready for assimilation, that the stomach digestion would be unnecessary," and when this happy time arrives, the stomach will become a superfluous organ and will dwindle away to a mere canal, as has been the case with the appendix veriformis.

Dods, in his Electrical Psychology, published fifty years ago, suggested that all life is electric and taught that with a proper understanding of this force, all the conditions of life might be changed. Already we have demon-

strated its wonderful curative powers, and are finding larger and larger fields for its employment in every phase of science and life, and who shall say that the time is not far distant when we shall wrest from nature the secret of its combination with matter?

May there not be lurking somewhere here a truth in the faith of the ancient alchemists, in their belief that the elixir of life had at last been found in the discovery of alcohol?

If electricity is the nerve force as Dods argued (and his arguments have never been refuted) and alcohol does really promote sustenance of the tissues, may not search for a pure alcohol and a means of connecting the two, result in the veritable discovery of an elixir of life?

Metaphysics teaches us that it is impossible for the human mind to conceive of that which would not be possible of attainment, and from past history it would seem there is truth in the statement, for we at the present time are realizing things as facts that were written of by novelists less than one hundred years ago, as being possibilities, and these writers were branded as having imagination gone to seed. The iron horse, the horseless carriage, the submarine boat, the air ship and hundreds of other things might be mentioned that were prophesied and were looked upon as huge jokes, but are facts to us.

Professor Gates, of the Smithsonian Institute, showed by a series of carefully conducted experiments, that animals when trained developed more cells in their brains, than those left to them-

selves, hence he very naturally concluded that the use of parts resulted in addition of cells, and the way to overcome defects in a part was to cultivate it. If an organ or part became abnormally developed, the cells opposing this development must be cultivated, etc. The body analysis shows alcohol as a normal constituent, that it is different from that we can manufacture; there must be cells in the stomach that can perform the feat of purifying this alcohol to enable it to be assimilated, and if this is the logical premise it seems, we see no reason we should not assume that with the increasing demand made upon them by the user of liquors, more cells are formed to enable the system to adjust itself to the work. The facts before us bear out this conclusion for we know of thousands of people who have used liquors all their lives and have reached very advanced age, which could not be the case were it the deadly poison some would have us suppose.

I have been conducting an experiment in my office, which is, as far as I know, original with me; though probably not as there is nothing new under the sun. But it may be of interest, therefore I will mention it.

I have about a dozen different kinds of plants growing in my office, some of these had become droopy, and two of them had died down and seemed past redemption, and one, a large fern, had become scaly. After trying many things to bring them back to good condition, even to giving them new soil, but without avail, I decided to try a dose of alcohol. I made a threepercent mixture and gave each plant about two

ounces each day. The result was magical, the fern that had the scales brightened up and bids fair to recover entirely, the two that were almost dead sprouted anew and in four days an asparagus fern had grown over six inches, a geranium grew four inches in the same time and the other plants have brightened up and look as fresh as when first purchased.

While these experiments are entirely

too crude and limited to be of much use in deciding anything, yet it does show that alcohol has been good for my plants, and as I am almost a total abstainer from liquors, perhaps I shall not be accused of looking at my plants through intoxicated eyes. It may later be shown that it was not the alcohol at all, but due to added consistency of "Spring Valley" at this time of the year. At any rate I wish others would try the experiment and report results.

Infectious Diseases,

DR. G. P. VON GERICHTEN, JANESVILLE.

Read before the Teachers' Institute.

BY infection is understood the introduction into the body of a pathogenic micro-organism which is capable of multiplying within it. Diseases, therefore, which depend upon such an infection are called "infective" or "infectious" diseases. For a long time it was the custom to draw distinctions between infections and contagion, but broadly speaking, the process is the same in every case and also called contagious diseases are certainly infectious in the modern sense of the term. It is true of course, that certain infections are only contracted by direct contact, while others as anthrax and small-pox can be contracted not only by direct contact but also through the intermediary of the air and are thus, to use the old terms, both contagious and infectious. It is more convenient, therefore, to class all diseases which depend on the entrance of a living organism into

the body as infectious. The living organisms which cause these diseases are nearly all vegetable in their nature and are of the class "fungi." The vast majority of them are bacteria.

But besides these vegetable organisms certain protozoa may give rise to infectious diseases, the most notable being the spirillum of relapsing fever.

However, we will not discuss bacteriology too thoroughly it being sufficient to note that bacteria are divided into two main groups, that of parasites which can exist and thrive in living animal tissues, and that of saprophites, which can live outside of living animal tissues, on dead animal or vegetable matter, or on inorganic substances. Each micro-organism, whether it be a bacillus or some variety of coccus, has the power when growing on the living tissues or in suitable media of manufacturing a toxin which is peculiar to itself.

In an infectious disease the majority of its distinguishing symptoms are due to the toxins rather than to the presence of the bacillus itself, although the latter may in certain diseases be the cause of local conditions which may ultimately cause the death of the infected person. Micro-organisms are introduced into the body in a variety of ways. It may be in the first place directly inoculated. It may be inhaled or it may be ingested. In order that a micro-organism may be introduced in one of these ways, it must contaminate various articles with which the person attacked is in contact, or else be carried in the air, or lastly, contaminate food or water.

The germs of some diseases such as small-pox and measles are probably in most cases inhaled, that of typhoid fever, on the other hand, is always ingested. It is possible, however, that germs which are primarily inhaled may find their way from the mouth and pharynx to the alimentary canal.

This would give an easy explanation of those cases of typhoid fever which seem to be due to dust.

The action of insects in assisting the spread of infection depends on their contaminating food. After obtaining an entrance to the body, the germ apparently lies more or less latent for a time before it gives off any amount of toxins. This latent period, the period of incubation, distinguishes an infection from an intoxication, no such latent internal occurring in a case of intoxication. Various infectious diseases show a range from a few hours up to nearly four weeks, some, indeed, much

longer. Moreover, the period of latency is by no means constant in the case of any given disease, the variation, for example, in typhoid fever, being nearly three weeks.

It appears in some diseases, at least, the length of incubation period may be affected by the dose of infection which the subject has undergone. The larger the dose the earlier the disease may begin. Again, an infection may be specific or nonspecific. In many diseases we know that the germ with which they are identified always causes an exactly similar series of symptoms and pathological lesions.

Such infections are truly specific. But there are other diseases which are due to micro-organisms and so must be classed as infective, which present the same chemical and pathological features and yet may be found in different instances to be due to perfectly distinct germs. Thus pneumonia may be due to more than one organism. Suppuration, again, may be caused by quite a number of different micro-organisms.

The exact process of an infection when once the germs have obtained an entrance into the body remains a question for speculation. No doubt a number are destroyed by the phagocyte cells, but these cells are probably without action on the toxins given off by the bacteria. The sudden manner in which many of the acute infections start would lead one to believe that the body, by means of its cells and fluids, can offer resistance up to a certain point by counteracting in some way or other the multiplication and activity of the invading germs. After a longer or shorter

internal its defence is suddenly lost and the symptoms of the infection suddenly appear.

As the infection progresses various substances are elaborated by the resisting organism which possess germicidal and antitoxic properties, and the invading germs are, by degrees, or in some diseases where there is a well marked crisis, suddenly killed off or rendered harmless and their toxins are neutralized. In some cases, however, the reaction of the infected individual may be below the average, or the infection may be more severe, and the toxins not being neutralized the individual succumbs to toxæmia and dies. It must be remembered that death may also occur from lesions caused by the presence of the bacilli, as for instance, death by suffocation in laryngeal diphtheria, or by hemorrhage or perforation in typhoid fever.

The amount of "resistance" offered by various infections by different individuals may vary considerably, that is to say, there may be an actual predisposition on the part of the individual to certain infections.

Predispositions to infection may be artificial or acquired. Many diseases are more easily contracted by persons whose power of resistance has been weakened by starvation, fatigue, loss of blood, damaged digestive power or exposure. In such cases the vitality of the individual is so depressed that germs which would find no chance of obtaining a lodgment in the tissues in a state of health, easily succeed in infecting him.

On the other hand, there may be im-

munity to an infection. This immunity may also be either natural or acquired. Natural immunity is shown in the cases of individuals who, frequently exposed to an infection, fail to contract it. It may be in all probability inherited. The fact that the father and ancestors of a person have all suffered from a given infection may act as a protection against the child contracting that infection badly or contracting it at all.

Immunity may be acquired by a previous attack of the same infection. That is to say, one attack of an infectious disease usually protects against that disease for life, or at least for a considerable period. This immunity is of course acquired during the attack of the infection. It may also be conferred by vaccination or by the injection of antitoxin prepared from the serum of an immunized animal. Such antitoxin may be not only prophylactic in its nature, but actually curative, and it is on this that treatment by serum is based.

To combat infection, the most efficient method is care of the general sanitation in the first place, and of the health of the individual in the second. Remembering the various ways in which infection may be carried to the individual, it is the duty of the community to secure that he should live in a pure atmosphere, have a water and milk supply above suspicion, and that the cleanliness of the streets and houses should be made an object of rigid care.

Should infection break out, the local authority depends on, firstly, "notification," a system under which every practitioner who diagnoses a case of infectious disease is bound to notify the

medical officer of health, which enables that officer to inquire into the cause of the outbreak and take the necessary measures of preventing its spreading. Secondly, it depends on "isolation" of the infected person in a fever hospital or in suitable rooms in the patient's own house. Thirdly, in certain more dangerous diseases such as plague of typhus, etc., quarantine may be imposed on persons who have been in contact with the sufferer.

Fourthly, in some diseases, "protective inoculation," such as antitoxin in diphtheria, or vaccination in small-pox, may be offered to the so called "contacts." In addition to these steps great attention must be paid to disinfection.

A few rules for the prevention of infectious diseases in the school.

The following diseases are considered infectious: whooping cough, measles, diphtheria, scarlet fever, small-pox, typhoid fever, chicken-pox, mumps and ringworm.

1. At the beginning of each term, certificates should be duly sent to the

parents or guardians, are required to be shown to the principal of the school on the entry or return of pupils, signed by their parents or guardians, not earlier than the day before admission, stating that to the best of their knowledge the pupil has not, for at least three weeks, been exposed to any infectious disease, nor entered any house where such disease has existed.

2. If a pupil takes an infectious disease during the holidays or has in any way been exposed to infection, he or she should not be allowed to enter or return to school without a printed form signed by a doctor, to the effect that all rules have been complied with.

3. If a pupil take an infectious complaint, or has in any way been exposed to infection during the term, notice must at once be sent to the head of the school of which he or she is a student, by the parents or guardian.

4. In addition to these various rules, the patient should be thoroughly disinfected before being permitted to visit or be visited or make his or her appearance upon the street or in public.

Feeding the Fever Patient,

BY CHARLOTTE A. AIKENS.

[INTELLIGENT feeding of any invalid is only possible when the practice is based on a knowledge of foods in general and their adaptability to diseased conditions. A nurse who only knows how to blindly carry out orders may tide a patient over a crisis successfully providing the orders are

so explicit and definite that "a wayfarer though a fool need not err therein." But so many conditions enter into successful feeding in fevers that it is rarely possible for even the most accurate and painstaking physician to anticipate all the needs of any one case and leave orders accordingly.

There are certain principles relating to the feeding of fever patients in general that every nurse should keep constantly in view. She should endeavor to avoid giving any food that will disagree with the present condition of the patient, and to give food in such form as to convey the maximum amount of nourishment with the minimum tax on the digestive powers. It is also well to remember that in fevers the fluids of the body are depleted and water in larger quantities than usual is needed. Water is easily assimilated and many foods may be introduced using water as a medium.

There are certain general symptoms present in all fevers and local conditions may modify or exaggerate the symptoms of any fever. In all acute febrile conditions we may expect dry hot skin, thirst, full pulse with increased rate, coated tongue, digestive disorder, loss of appetite, headache occasionally, pain in a greater or less degree in the back and limbs and elevation of temperature. In all fevers, too, there is increased tissue waste, due to a perversion of the physiological processes.

Practically all authorities are now agreed that less tissue waste results when the patient is supplied with plenty of nitrogenous element of food. The theory is that the proteid substance contained in the food is burned instead of the proteid element stored in the body structures. The nitrogenous food given does not go to produce tissue but to spare them from the excessive waste due to the fever.

In all fevers where there is a regular

remission it is better to increase the supply of nourishment during the hours when the fever is lowest. It is believed that better digestion and absorption is possible at such times, the tissues appearing to regain to some degree their power of assimilation.

In most fevers the secretion of the gastric fluids is greatly lessened. There is not only a decrease of desire and often disgust for food, but the food if taken causes vomiting, pain, fermentation and tends to aggravate the febrile condition. In many cases the excretory organs are sluggish during fevers and certain products resulting from the destruction of tissue may be retained in the system to add to the gravity of the situation. In feeding, therefore, it is well to choose such foods as will favor elimination and contain little residue that is incapable of digestion. In many cases the stomach becomes practically incapable of digestion. The peptic and other secreting glands are so gravely impaired that the work of digestion must largely take place in the intestine, the stomach becoming for the time merely a channel through which the food may pass. It is such cases that tax the nurse's powers to the utmost and call for intelligence and sound judgment in feeding.

On some points practically all authorities are agreed—that the food of the fever patient should be in fluid forms, that it should be given at short intervals and in small quantities. Milk maintains its high place as a fever food. There is, however, a possibility of being deceived as to the amount of nourishment a patient is getting in a milk

diet. It is only what the patient really digests and assimilates that is a factor in his recovery. Milk is so convenient and requires so little preparation that nurses may sometimes forget that milk while it is a fluid outside the body becomes a solid when in contact with the digestive juices. It may coagulate into a solid so firm that it may pass as a hard curd through the entire alimentary tract without being digested. In many cases where fever patients have been carelessly and unintelligently fed on milk masses of firm, undigested curds may be found in the bowel discharges. In all acute diseases nurses should keep a careful watch for signs of undigested food. In any case milk should be cautiously administered. As a rule, it should be taken slowly and diluted with water, or, better still, vichy or some effervescent alkaline water. Some physicians advise the addition of ten grains of bicarbonate of soda and a little common salt to every pint of milk, with directions to dilute with plain water as administered. Where the digestion is difficult, it may be necessary to dilute the milk by adding an equal portion of lime or vichy water, giving it in small quantities and at shorter intervals. Every hour feeding in such conditions yield better results than larger amounts every two or three hours. Even in a milk diet a good deal of variety may be secured by skillfully combined flavors. The patient who is fond of coffee will enjoy his morning meal of milk, if it is given hot with the addition of an ounce of strong coffee freshly made. Equal parts of chicken broth and milk served

hot will often be relished when a glass of cold milk would be refused. Junket is partially digested milk and thus well adapted to fever patients. It may be given with various fruit flavors and because it is eaten in solid form the patient is likely to appreciate the change from the monotony of fluids. Any of the starchy foods, such as arrow root, oatmeal, or barley strained, will serve a useful purpose when combined with milk by preventing the formation of the milk into tough, indigestible curds. Where there is a tendency to diarrhoea, barley water is a good diluent for milk while oatmeal water is preferable when the tendency is toward constipation.

Gelatin prepared with various flavors is strongly recommended for use in fevers because of its value in preventing tissue waste. The gelatin may be added to many broths with advantage, because while broths contain certain mineral elements that the body needs, and the water is also needed, they are not rich in actual nutritive substances. Eggs in some form are now usually permitted in a fever dietary. It is a mistake to suppose that the white of the egg only is suitable in febrile affections. The yolk may very properly be administered either as an addition to clear soups or milk, or combined with wine, water, or some favorite flavor. Beef tea is one of the most valuable of the meat preparations. A variety in clear soups may easily be secured by the use of any of the vegetable flavors that would be relished by the patient. By cooking such vegetables as carrot, celery, parsnip with aromatic herbs,

such as parsley, mint, sage, or thyme, cutting them fine and inclosing in a muslin or gauze bag with the meat, it is possible not only to secure a delicious flavor in the soup, but also to secure for the patient a considerable proportion of the juices and salts contained in fresh vegetables. Or the clear soup or stock may be made separately and the flavor varied from day to day by extracting the juices from different fresh vegetables by boiling and adding the product to the soup stock. About a pint and a half per day of beef, chicken, or mutton broth, alternating with milk, is a fair average supply of soup. Where there is a tendency to diarrhoea, the broths are usually withheld.

It is during convalescence, however, that the nurse's culinary powers and ingenuity will be tested. The length of time required for the digestive organs to recuperate varies with different persons, and this is a case in which it is wise to make haste slowly. Cream may enter more largely into the dietary then served with some of the finer starchy foods. The first flesh food administered after acute fevers should be given with the fibres finely separated, as in scraped beef or chicken minced, and served alone or with a cream dressing. Where the fever has not produced any ulceration of the alimentary tract, the diet may be somewhat more liberal in convalescence than where such lesions are present.

A dietary for a patient convalescing from pneumonia, malaria, or some other acute febrile affection, dating from the first day in which fever had

been entirely absent, might be arranged as follows:

FIRST DAY: Breakfast—Milk toast, soft boiled egg, coffee. Lunch—Junket. Midday meal—Oyster stew with crackers, weak tea. Lunch—Equal parts of chicken broth and milk with small piece of bread. Supper—Farina with cream, orange jelly.

SECOND DAY: Breakfast—Well-cooked rice, cocoa, toast. Lunch—Cup of baked custard. Dinner—Potato puree, crackers, snow pudding, weak tea. Lunch—Cup of milk, coffee with scraped beef sandwich. Supper—Cream of wheat, prune whip.

THIRD DAY: Breakfast—Poached egg on toast, coffee. Lunch—Cup of bouillon with croutons. Dinner—Creamed chicken, crackers, ice cream. Lunch—Lemon jelly with triangle of thin bread and butter. Supper—Baked potato, cocoa, wafers, orange sponge.

FOURTH DAY, Breakfast—Baked apple, well-cooked oatmeal, buttered toast, coffee. Lunch—Junket, social tea, crackers. Dinner—Broiled steak, bread and butter, riced potato, charlotte russe, weak tea. Lunch—Cup of cocoa, thin bread and butter. Supper—Celery bisque, crackers, arrowroot.

Following this, if no digestive disturbance is noticed, the diet may be gradually increased, choosing for the first week the most nutritious and easily digested foods.

Doctors do not always bury their mistakes, try they ever so hard to rid the world of vexatious nondescripts.—*The Dietetic and Hygienic Gazette.*

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CALIFORNIA MEDICAL JOURNAL,

1466 Folsom St., San Francisco, Cal.

Editorial.

The California Medical Journal.

In this issue the JOURNAL quotes the first editorial written by the editor in the first issue, twenty-six years ago. In 1880 Eclectics were few and far between. Not more than ten in the State. How much we have progressed we leave to the reader. How much change in sentiment we leave to the thoughtful. How much we owe to the pioneers, later arrivals, and graduates of the California Medical College is a matter of history.

With the advent of the new year we unfold the pages of an Eclectic Medical Journal, which shall be devoted to medicine and the collateral sciences. Our principles shall be liberal and independent, recognizing no authority, except known physiological, pathological and clinical truths. Firmly and conscientiously believing in the words

of our motto, "not bound to swear to the dogmas of any master," we shall advocate liberty and freedom and denounce bigotry, and usurpation of authority, which interferes with individual liberty of thought, and restricts individual research after truth.

We deprecate the bitterness and ill-feeling that exists between the different schools of medicine, and hope a day of reconciliation may come, when prejudice shall cease to rule and decide opinions, without that careful investigation which honesty demands. We shall recognize what is good in all schools, and claim the right for all physicians to select such remedies as in their judgment are best adapted to the relief of their patients, and consult whomsoever they please in reference to their welfare.

Science knows no isms nor sects. It recognizes truth wherever found. The prejudice which exists in the ranks of the profession retards the progression and advancement of the healing art. A more liberal and less dogmatic feeling

is necessary to be cultivated, in order to promote medical science. Our efforts shall be directed to break down the barriers of parties and isms, and build up an era of fellowship and good feeling.

Our pages shall be largely devoted to *Materia Medica* and therapeutics. The introduction and discussion of new remedies will form a leading feature of our journal. In therapeutics a great change has taken place in the past few years, and it shall be our aim to keep our readers informed, not only of the therapeutic value of new preparations, but also of old, founded both on physiological action and empirical use.

Medical and surgical clinics of practical interest to the profession, will be reported from time to time.

Sanitary science and hygiene will receive due consideration. The prevention of disease is of greater importance to humanity than the cure. The study of physiological laws will be encouraged that the people may be educated to preserve their health and enjoy the greatest of all earthly blessings, by living in accordance with the laws of nature.

Our reviews of medical publications will be conducted by a physician of ripe scholarship and scientific attainments, so that the profession may rely on such criticism as we make, and be assisted thereby in their selection of medical works.

Communications from the profession on matters of general interest are solicited. We freely offer our pages for the discussion of medical topics, and hope our brethren will respond in

sending us such matters as they shall deem of importance to the profession.

The current medical news, and latest discoveries will be duly chronicled.

We shall publish extracts from other journals irrespective of schools. Sufficient for us to believe, that it will be of advantage or interest to our readers. We care not for the source. Light, reason, and truth, we acknowledge wherever found.

We assure our readers that no pains will be spared to make the JOURNAL a first class publication. Besides our local talent, we have made arrangements with regular contributors in the east; and we feel confident of making the CALIFORNIA MEDICAL JOURNAL the principal medium of communication among the liberal of the profession, especially on this Coast.

During the past month the Eclectic medical profession of California has suffered a personal bereavement in the loss of Dr. M. H. Logan. Although Dr. Logan has been ill for several years nevertheless his death came as a shock to those who had been so long and so intimately associated with him. Eclecticism never had a stancher adherent, and the Journal feels that it is expressing the feeling of the whole State when it expresses its sorrow for the death of Dr. Logan and for the illness which made that death a release.

Milburn Hill Logan was born in Richview, Washington County, Illinois, on August 5, 1855. In 1864, with his parents, he came to California across the plains, passing through many dangers from Indians and others, which

beset the path of our early settlers. The family first settled in Santa Clara, sending Milburn to school in Oakland, but soon removed to St. Helena. This beautiful town his father helped build up, laying out the well known "Logan's Addition," and in every way forwarding the interests of the town. In 1875, young Logan entered the University of California; but after two years' hard study was temporarily blinded by an explosion of fireworks. On his recovery, he entered the California Medical College, graduating with honors in 1881. He immediately commenced practice, and, by the exercise of natural ability, joined to indomitable energy, achieved success. In 1887, he entered the Pharmacy Department of the University, and there made a brilliant record, carrying off the first prize, a gold medal, in the face of all competitors. In 1890, Dr. Logan went to Europe, attending lectures at Berlin and visiting all the leading hospitals and universities, where he met and gained ideas from the leading minds of the day. He also attended the Medical Congress at Berlin, taking an active part in its proceedings. In addition, visited Northern and Southern Europe, and attended lectures at Paris. In 1883 Dr. Logan was appointed Professor of Chemistry and Toxicology at the California Medical College, holding this position until his failing health compelled him to give up all work connected with his profession.

San Francisco, Cal., Dec. 18, 1905.

EDITOR CALIFORNIA MEDICAL JOURNAL.

For the benefit of science I desire to call your attention to the results of my latest experiments. These experiments

took place on the 12th of December, 1905, at the stock yards of Messrs. Poly, Clayburgh & Co., by whose courtesy I was enabled to accomplish this work. The following is a full report from Captain L. D. Wildman, Signal Corps, U. S. A., who furnished and took charge of the electrical instruments used.

REPORT.

231 Phelan Building,
San Francisco, California,
December 13th, 1905.

ALBERT J. ATKINS, M. D.,
PARROTT BUILDING,
CITY.

MY DEAR SIR:

I take pleasure in making report of the experiment carried on under your direction, to determine whether there exists a difference of electrical potential in the brain of a living animal under all conditions, and whether the difference varied with the emotions of the animal.

The apparatus used consisted of two platinum terminals, so formed that there was little tearing of the brain tissue, and fitted into ebonite handles, which were connected by binding screws to the insulated copper wire running to a very sensitive galvanometer, through a shunt of one-tenth. The shunt of one-tenth was used in order to bring the readings upon the scale of the instrument.

No batteries of any kind were used, and all the current indicated on the galvanometer must have come from one of two possible sources: first, electricity residing in or developed by the brain of the animal; second, electricity

caused by difference in temperature at the joint of two dissimilar metals. It is probable that the second cause may be partially incorrect, when the irregularity of the curves is considered, as there would be no sudden difference of temperature to account for it.

The line AB on the chart is the deflection caused by dipping the same electrodes into the blood of the animal after death. Its temperature was somewhat reduced from the normal temperature of the animal, but no increase or decrease of this temperature would produce other than a steady current, without pulsations or fluctuations, and would, therefore, only affect the amount of the current produced. The chart shows exactly what occurred without further written explanation.

When the electrodes were inserted a deflection of seven (7) points upon the galvanometer was noticed, which fell within one minute to a deflection of four (4) points. This momentary rise may have been due to temperature effects on putting the cold electrodes into the brain, or it may have been caused by the mental excitement on inserting the electrodes. Whatever its cause, the fact remains that a current which produced the deflection of four points in the galvanometer continued with great steadiness for nearly six (6) minutes, while the animal was lying quietly and apparently without excitement.

At the moment the animal's throat was cut, the galvanometer deflected nineteen (19) points in the same direction, and then fell, following the curve as shown, until the electrodes were re-

moved at the end of five and one-half ($5\frac{1}{2}$) minutes after the animal's throat was cut. For a moment or two the animal struggled slightly, to which fact is probably due the variations shown from the point marked 10 to the point marked 15.

The variation of the pressure of these electrodes upon the brain substance itself would alter the resistance in the entire circuit, and, therefore, the current in the apparatus.

I have dotted the curve from 15 to 9, as the probable one upon which this current actually fell. This curve, however, is merely a supposition, and does not alter the facts in any way.

From the point marked 15 to the point marked 20, a period of three and one-half ($3\frac{1}{2}$) minutes, the current fell with great steadiness until the electrodes were removed, at which time the animal was practically bloodless. The electrodes were then removed and immediately put into the blood of the animal, which produced the deflection shown at AB.

As this report is merely upon the electrical part of the experiment, I venture no opinions as to whether the electricity clearly shown resided in the brain substance, or was the phenomenon connected with the blood letting.

One thing, however, is proven. In the living animal there exists a difference in potential between two points in the brain, which difference in potential would cause a certain amount of electrical current to pass between those points. When the animal is killed by bleeding to death, this difference in



potential ceases, and with it the electric current.

The apparatus with which this experiment was performed was taken to the laboratory and the electric constants worked out. There is one element of uncertainty in the circuit, that element being the actual resistance of the brain material between the points of the electrodes. The resistance must have been slightly variant with the pressure of the electrodes and the position which they occupied in the brain.

In figuring the exact voltage and amperage obtained I have arbitrarily assumed this slight resistance. As a result, I find that the current produced at the moment the animal's throat was cut, was, approximately .0007 amperes. As this galvanometer is a tangent galvanometer, the other points are exactly proportionate, and the current at any point may be readily calculated.

Respectfully submitted,

L. D. WILDMAN,

Captain Signal Corps, U. S. A., M. E.,
Member of the American Society of
Elec. Engineers.

I was ably assisted in the detail of these experiments by Dr. Emma A. Lewis, Dr. H. W. Hunsaker, Dr. A. B. Nelson, and others. My conclusions of this experiment are as follows:

First: The life principle acts electrically in all living organisms. Second: The brain being charged with electrical energy causes it to be capable of registering thought, upon electrical principles. Other experiments conducted by us demonstrate that the entire organism works upon electrical principles.

Respectfully yours,

ALBERT J. ATKINS, M. D.

Prof. Physiology, California Medical
College.

Editorial Notes.

Dr. W. W. Wimer is now pleasantly located at Honey Grove, Texas.

Battle & Co. have issued the eighth of their series of illustrations of the Intestinal Parasites. Sent free to physicians on application.

San Francisco.

TO THE ECLECTICS IN THE STATE OF CALIFORNIA.

Any Eclectic who has not received a letter from the President of the State Society, will kindly send his name and address to Dr. H. W. Hunsaker, 121 Geary St., as he wishes to consult you upon a subject of great importance to Eclecticism, and at once. Many letters have been returned on account of wrong address.

At last, that which has been long expected, has come—The death of Dr. M. H. Logan.

A few years ago his death would have been mourned by thousands, but, owing to his long mental and physical suffering, his many friends are satisfied that his pain has been relieved by the hand of death.

Dr. M. H. Logan was Professor of Chemistry in the California Medical College for many years; he wrote extensively and was one of the best authorities on that subject on the Coast.

When doctor Logan's health failed the California Medical College and the County, State and National Eclectic Medical Societies lost one of its best workers and most ardent supporters,

and hundreds of people in this city lost a true friend as well as their physician.

To those near and dear to him we extend our deepest sympathy and trust they will be able to bear their burden in the hour of affliction.

H. W. HUNSAKER, M. D.

President of the Eclectic Medical Society of the State of California.

Reviews and Extracts.

Local Anesthesia.

Hildebrandt (*British Medical Journal*) thinks that the employment of these in surgical operations has gone too far, in doing harm to fearful and nervous patients; but, on the other hand, he fully recognizes the immense advantages in a large number of cases in avoiding the dangers of general narcosis. In deciding between general narcosis and local anesthesia, one must study the patient, and to a certain extent the capabilities of the surgeon must also be taken into account. In turning to the various methods of inducing local anesthesia, he says that Richardson's method of the ether spray has now been replaced by other methods—for example, ethyl chloride. Improvements of this have been introduced in the shape of additions—for example, ethyl chloride with cocaine or eucaïne; or in the shape of mixtures of ethyl and methyl chloride—for example, anestyle coryl, and anesthol. But the use of locally acting anesthetics has been found to be better than the action of cold, and the introduction

of cocaine and its allies marks an epoch in this branch.

The dangers of cocaine, especially when injected in concentrated solutions, have caused the surgeon to be cautious in its use; but this danger has been much diminished by the simultaneous employment of extracts of the suprarenal glands. He mentions the method introduced by Reclus, who employed one per cent. solutions injected into the cutis, and limited the amount of salt injected to 0.19 gramme. Schleich's method, however, has completely replaced Reclus's; Schleich uses cocaine hydrochlorate, morphine, chloride of sodium, and distilled water, and makes up three solutions. The ordinary solution consists of 0.1 per cent. of cocaine, which he employs for the usual skin anesthesia: for deeper, less sensitive structures he dilutes this down to 0.01 per cent.; while for hyperesthetic areas he uses 0.2 per cent. solutions. The infiltration takes place by first rendering a small point analgesic with ethyl chloride, then injecting the solution into the skin, forming a weal, and into the periphery of this again inserting the needle; and so on until the whole area of the field of operation is rendered anesthetic. The deeper layers are treated in the same way; one hundred cubic centimeters of the normal solution can be injected without the least danger, for part of the fluid escapes on the incision being made, while the rest absorbs very slowly. The addition of adrenalin in Schleich's local infiltration is also of great value. The operations especially well suited to this form of local anes-

thetia are: the extirpation of benign encapsuled tumors, resection of ribs, typical operations on the abdomen, such as gastrostomy, etc., as long as one has not to search too much inside the peritoneum, as pulling of the mesentery and omentum causes both great pain and much shock. The removal of malignant tumors and operations on inflamed areas are not well adapted for Schleich's anesthesia. — *The Charlotte Medical Journal*.

Treatment of Middle Ear Diseases.

According to the *Indian Medical Gazette*, Bulson thinks that the prophylaxis of middle ear disease is too often neglected. Every slight earache should be looked after, constitutional conditions be attended to, and proper treatment be given to conditions of the nose and throat. Opiates mask symptoms and should not be used for pain; dry heat will usually suffice. As the pain is due to pressure from congestion, the essential treatment is depletion, and this may be accomplished by catharsis, leeching, the application of carbolic acid and glycerine to the membrana tympani for its osmotic effect, or by direct incision. Bulson does not favor waiting for bulging of the membrane before incising. He has never seen any bad effects from an early incision done with proper antisepsis and precautions, but he has seen delayed cessation of discharge, impairment of hearing, and even more serious results from waiting. Summing up his recommendations, he says: 1. The patient should be kept quiet, in bed, and the

more active the symptoms the more necessary the enforcement of this measure. 2. Secure a prompt and free movement of the bowels by calomel and salines. 3. Secure depletion of the vessels of the membrana tympani and of the tympanic cavity by leeches applied immediately in front of the tragus, and the osmotic effect of carbolic acid (ten per cent.) and glycerine tampons applied directly against the drum membrane. 4. Cleanse the pharyngeal and nasal mucous membrane with a saline antiseptic spray or douche. Remove any existing hypertrophied lymphoid tissue. 5. Advise cautious blowing of the nose to avoid infection of the tympanic cavity. 6. Apply dry heat for control of pain. 7. Incision of drum membrane under strict asepsis on appearance of pronounced redness of any portion of that organ when accompanied by pain, impairment of hearing, and other evidence of acute inflammation. 8. Following perforation of drum membrane, the use of aseptic dry gauze packing to exclude infection from without and also to withdraw the discharge from the tympanic cavity by capillary attraction. 9. Judicious inflation by Politzer's methods only after the acute symptoms have subsided or after the drum membrane has been opened to facilitate removal of discharges and to prevent adhesive changes in the sound-conducting apparatus.

Neuralgias from Alcohol and Opium Excesses.

A recent number of the *Quarterly Journal of Inebriety*, published under the auspices of the American Associa-

tion for the Study and Cure of Inebriates, Hartford, Conn., U. S. A., says: "Antikamnia Tablets are one of the best remedies and are very valuable as a mild narcotic in neuralgias from alcohol and opium excesses. We have used them with best results." The *Edinburgh Medical Journal*—Scotland—says, regarding Antikamnia: "In doses of one or two tablets, it appears to act as a speedy and effective antipyretic and analgesic." The *Medical Annual*, London, Eng., says: "Our attention was first called to this pain reliever by an American physician whom we saw in consultation regarding one of his patients who suffered from locomotor ataxia. He told us that nothing had relieved the lightning pains so well as antikamnia tablets, which at that time were practically unknown in England. We have since used them repeatedly for the purpose of removing pain, with most satisfactory results. The average adult dose is two tablets, which may be repeated every two or three hours without fear of unpleasant symptoms."

Superiority of Liquid Medicines Over Alkaloids.

BY PITTS EDWIN HOWES, M. D.

Curation of disease is a problem which is constantly confronting the practitioner of medicine. Among the multitudinous duties of mankind there are none that are so complex as those which fall to the lot of the physician.

The mechanism of man is a wonderful net-work of complicated organs; all striving toward a common goal—the

health and strength of its various tissues. While anatomy is essential to the understanding of the structure, physiology is no less important in aiding us to comprehend the action of its component parts. Physiology, then, plays a large part in the practice of the successful medical man.

It teaches us that all nutrition is supplied to the body through the medium of the blood; that this nutriment is conveyed to the blood, and the parts needing renewal, by means of endosmosis and exosmosis; that it is necessary for this nourishing pabulum to be in a liquid state before these exchanges can take place.

Experimentation has demonstrated that liquids are much more promptly absorbed than articles of a semi-fluid or more compact nature. Hence the first point of the superiority of liquids over the alkaloids is the fact that they are absorbed with greater rapidity, and thus their beneficent action is commenced more quickly.

The action of the liquids are more gentle, because, as a rule, they are less powerful than the alkaloids which are extracted by means of chemical manipulation from the various fluid preparations that yield the alkaloidal principles.

All who are familiar with the workings of nature know, and must admit, that the more gentle the process the more lasting and complete is the result obtained. The constant dripping of water, drop by drop, will wear away the hardest substance over which violent measures, though more energetic in their onset, would utterly fail.

The soothing effect of liquid medication will aid materially in producing a more lasting relief from those conditions which are the cause of the departure from the normal or healthy standard.

The liquid preparation—be it infusion, decoction, tincture, or fluid extract—contains all of the plant constituents, and combines in Dame Nature's own way the various ingredients.

Plants yield their medicinal qualities to a varying proportion of water and alcohol. The practical pharmacist knows that the right proportions must be used in order to get a reliable and complete representation of the plant under treatment. Again, the plants must be used at different stages of their existence in order to obtain the most reliable results. Some must be used in the green state with all their juices; others should be partially dried and a part of their liquid substance allowed to evaporate, while still others must be in a completely dried condition.

Physicians understand very well that they get better results from the medicines of some manufacturers than they do from those of others. They do not always stop to consider why this is so. It lies all in the process of manufacture. The practitioner who uses tinctures made from fluid extracts will be very apt to lose faith in medication, because of the poor results which he, many times, obtains. He charges the fault to the medicinal agent, when, in reality, the fault lies in the method of preparation. The blame should be laid at the door of the pharmacist.

The rapidity of the absorption of fluids by the blood will prevent the cumulative action which sometimes results from the use of the alkaloids. This is a factor which should not be forgotten. Many deaths could be properly charged to this mode of action in the alkaloids.

Many times the alkaloidal principle must be placed in a fluid vehicle in order to get the best results, as, for instance, the whole method of hypodermic medication. There is no question but that the hypodermic syringe has been a blessing to mankind. But where is the practitioner who would like to treat his cases wholly with this instrument?

The alkaloids, when you have said the best you can in their favor, are, at best, only a part of the original plant. We are apt to term them the active principle of the plant. How are we to demonstrate this fact absolutely? Can it be demonstrated? I think not. Who would be rash enough to assert that all of the good of cinchona lies in the quinine, or that of nux vomica in the strychnine? And not only of these two, but also of the entire list of plants, which, by means of manipulation, can be caused to give up their alkaloidal principles.

Those who are at all familiar with the early history of the Eclectic School of Medicine know how nearly it came to shipwreck because of the wild enthusiasm over the idea of alkaloidal medication. Fortunately, the error was discovered early and the more rational and scientific method of using the entire plant was substituted.

Without doubt there are fewer therapeutic nihilists to-day among the eclectic practitioners than any other school of medicine. It is due to the fact that they use almost exclusively the liquid medicines.

I do not wish to be understood that there is no place for the alkaloids in the medical practice, for I am willing to admit that there is. I do contend, however, that that place is very much smaller than many of its champions would have us believe.

Pneumonia.

"The pneumonia season is rapidly approaching. Soon the various journals will be full of the statistics of past years in regard to the prevalence and fatality of this disease. The pathology and etiology will be thoroughly gone over, but, judging by the past, most writers will have very little that is encouraging to say as regards treatment.

"Several points, nevertheless, must be kept in mind. Whatever drugs are used internally (and this depends very much upon the individual case), the patient must have plenty of fresh air. Do not be afraid of his taking cold on account of the cold air blowing across his face. It is now considered that this is impossible. Also, whatever drugs may be used, keep the body warm with suitable clothing, and use externally some preparation which will cause a comparative lessening of blood pressure in the lungs. Cold applications, beside lowering the vitality of the patient, cause a depletion of the superficial vessels and consequently increase the hyperemia in the lungs themselves.

Our attention then would be drawn, per contra, to hot applications. To the most of these there are very great practical objections, such as their inconvenience, their tendency to grow cold very rapidly, and the fact that they must frequently be renewed, thereby disturbing the patient's rest to his manifest detriment.

"We have found but one form of hot application which seems to us to entirely fill the bill, and that is Antiphlogistine. By its means the vitality of the body is conserved, the blood is attracted to the surface and away from the lungs (its hygroscopic action remarkably enhancing this effect), and the tone of the heart's action is maintained. Besides this, its frequent renewal is not necessary, and the patient's rest is not thereby disturbed. Practically we know that by its use the patient is made much more comfortable, the fatality is much decreased, and if abortion of the disease is possible, we believe it can be accomplished better by this means than by any other."—*Kansas City Medical Record*, October, 1905.

Virtue Running Wild.

The sentiment which underlies the present efforts of certain worthy medical men, to protect the profession from imposition and to make our therapy clean, reliable, and trustworthy, is entirely laudable and commendable. The extent to which some of these gentlemen are permitting their enthusiasm to carry them is lamentable. The judgment passed upon many of the pharmaceutical preparations which have stood the test of time for years in the

practices of thousands of successful medical men has seemed hasty and ill-advised. To one who is prejudiced in neither direction, who endeavors to look at the matter with perfect fairness, it is very questionable if it is right that a small faction of the American Medical Association should use the organ owned by all of the members to condemn or detract from the reputation of long-established pharmaceutical preparations, many of which are used regularly by a large part of the membership of the association. The manufacture and sale of pharmaceutical preparations is and must be commercial in its character. It can never be strictly professional. The average preparation which has been used by medical men of intelligence for years with good results must have something in its favor, even if its manufacturers are not willing to conduct their business exactly as we may wish to dictate. I have no desire to uphold in any way the secret medical nostrum, but I question, as a matter of fairness, the propriety of attacking any well-tried preparation until it is demonstrated beyond reasonable doubt that the members of the association are opposed rather than being users of the preparation in question. Those who have been placed in positions of power—which may be used for the accomplishment of evil as well as good—should appreciate that such an office is one of trust, and there should be an effort to carry out the will and wish of the majority rather than to be led by personal prejudice or petty motives.

G. T. P.

—*The Chicago Clinic and Pure Water Journal.*

Those of the medical profession who, like myself, have been in the harness for two-score years or more, can look back to the primitive methods and remedies used by us in our earlier days of practice, and then note the advantages we enjoy to-day in the way of modern therapeutic agents, and truthfully say that the advancement in the science of therapeutics and pharmaceuticals has been truly wonderful.

While it is true that we employ practically the same remedies as in days gone by, or the active principles of the same drugs, yet thanks to the pharmaceutical chemist we are now enabled to prescribe them in a more agreeable form with all the inert matter eliminated and the desired constituent whose physiological action we wish to obtain remaining, and in the majority of preparations where that particular principle would be unpleasant to the palate, it is skillfully combined with aromatics, etc., that do not detract from its therapeutic value yet render it agreeable to take.

As an illustration, I call your attention to a remedy that no doubt the majority of us have used in treating tuberculosis, phthisis, scrofula, chronic pectoral complaints, and all wasting diseases. I refer to cod liver oil. From my experience and observation I think it has been used with uniform success in those cases wherein the use of a remedy of its nature was indicated. The only objection to its use that has ever been advanced to my knowledge was the fact that many sensitive stomachs could not tolerate it on account of the disagreeable taste and

smell; but now, thanks to the advancement in therapeutics, those disagreeable features have been eliminated, and we now have in Hagee's cordial of cod liver oil compound a preparation containing all the active principles of cod liver oil, yet so skillfully combined with aromatics, etc., that the most sensitive and delicate stomach will not rebel at its administration; and thus we are enabled to use this sovereign remedy wherever its use is indicated. I have had some excellent results from its administration in cases of brain exhaustion and nervous debility, while in chronic pectoral complaints and wasting diseases, and wherever an alterative and reconstructive tonic was needed, the above combination was my chief anchor.

B. B. RALPH, M. D.

Kansas City, Mo.

HEAVY COLDS.

The rheumatic and grippy conditions which so frequently accompany heavy colds are sometimes overlooked.

By the prompt use of Tongaline the irritating features of these conditions are ameliorated and the congestion is relieved, while the great stimulating action of Tongaline on the liver, the bowels, the kidneys and the pores, quickly expels the poisons which are the cause of the trouble.

GREEN DRUGS.

The Wm. S. Merrell Chemical Company have long been identified with the exploitation in Normal Tinctures of certain drugs employed in their green state. They were the originators of

this theory and their exhaustive investigations and experiments extending over many years have made them authorities upon this subject, making it possible to prescribe such drugs as *Viburnum Prunifolium* and *Passiflora Incarnata* with a knowledge that they actually represent in liquid form the full active medicinal principles of the plant in its prime condition.

In *Viburnum Prunifolium* it is easy to distinguish the difference between the use of a dry and green drug by the strong characteristic odor of Valerianic Acid and *Viburnum*—the active principles. It is through strict adherence to the Merrell quality standards that Genitone, a preparation original with this Company is known as a reliable and effective combination of a number of well known drugs. The combination is made without precipitation in a permanent, palatable form without the sacrifice of any of the principles governing the manufacture of green drugs with pure grain alcohol. In accordance with the policy of the Merrell Company, the exact quantities of the ingredients are given and the prescription at once suggests its use in the many conditions in which it is indicated.

Sanmetto in Irritability of the Prostate and in Pre-Senility.

I have used Sanmetto in several cases during the past five years and have yet to be disappointed in results. Have found it particularly valuable in cases of irritability of prostate gland with decreased sexual power.

JNO. T. HEMERSON, M. D.

Cleveland, Ohio.

IMPORTANT ANNOUNCEMENT.

The Alkaloidal Clinic has Changed its Name to The American Journal of Clinical Medicine.

With the January issue in preparation, we change the name of THE ALKALOIDAL CLINIC to one which more fully embodies the scope of our propaganda, namely, THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

We have added to our present strong editorial force (all of which is retained and with no change in management or any financial change whatever). Dr. Wm. J. Robinson of New York City, who will conduct a department of "Dermatology and Genitourinary Diseases;" Dr. Emory Lanphear of St. Louis who will conduct a department of "Surgery, Obstetrics and Gynecology," and other departments will be added as arrangements can be made therefor.

With this additional force, the make-up of the journal will be improved in many ways. The best minds in this country and Europe will contribute articles which will be of inestimable value to the general practitioner who is willing to learn and anxious to keep up with the times. Our platform is as broad as the world. We believe the physician should pluck the health-giving fruit, it matters not from what garden. Active principle therapy, Surgery, Synthenic chemistry, massage, electricity, serum therapy, hydro-therapy, radio-therapy, etc., etc., all of these offer us in mighty weapons for our battle with the enemies of the human race, *disease* and *death*, and the new, enlarged, rejuvenated, and strengthened CLINIC now called (as better indicating its scope), "THE AMERICAN JOURNAL OF CLINICAL MEDICINE," will include all

these weapons in its armamentarium. It will give its readers all that is best in medicine, all that is best in the literature of the world, all that is most helpful, most practical.

*Book Notes.**Lectures on Auto-Intoxication in Disease or Self-Poisoning of the Individual.—*

By Ch. Bouchard, Professor of Pathology and Therapeutics; Member of the Academy of Medicine and Physician to the Hospitals, Paris. Translated, with a preface and new chapters added, by Thomas Oliver. M. A., M. D., F. R., C. P., Professor of Physiology, University of Durham; Physician to the Royal Infirmary, New Castle-Upon Tyne; Formerly Examiner in Medicine, Royal College of Physicians, London. Second revised edition. Crown octavo, 342 pages, extra cloth. Price, \$2.00, net. F. A. Davis Company, publishers, 1914-16 Cherry Street, Philadelphia.

This second edition of Prof. Bouchard's work will be warmly welcomed by the medical profession. It is a subject of such every-day interest to the practitioner that it assumes a very important place. These lectures may be regarded as an inquiry into the operation of poisons within the body of man and the part they play in health and disease. The chapters of greatest interest are those on the toxicity of urines, but those on typhoid and cholera contain many suggestions of value from a therapeutic standpoint. It is certainly one of the most valuable books for the general practitioner.

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A guide to the study of Specific Medicine, giving briefly the specific indications for remedies, paying particular attention to each organ of the body distinctively.

BY JOSEPH S. NIEDERKORN, M. D., VERSAILLES, OHIO.

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CHICAGO MEDICAL TIMES.

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H. E. BEEBE, M. D., Sidney, Ohio.

"The little book is a 'dandy.' I think it contains more real practical information for the average physician than any other book I ever saw, no matter what its size may be. I should think that every progressive physician, no matter of what school, would want a copy, and am sure they all would, if they but knew its real value."

E. R. WATERHOUSE, M. D.

"Permit me to commend your 'Handy Reference Book.' I am not an Eclectic, but find the little volume very suggestive indeed."

THOMAS S. BLAIR, M. D., Harrisburg, Pa.

"Am still using your '92 edition. Have found it very satisfactory. The new one will extend and broaden the field, and should be at the hand of every Eclectic in any and all countries."

E. P. WHITFORD, M. D., Westboro, Mo.

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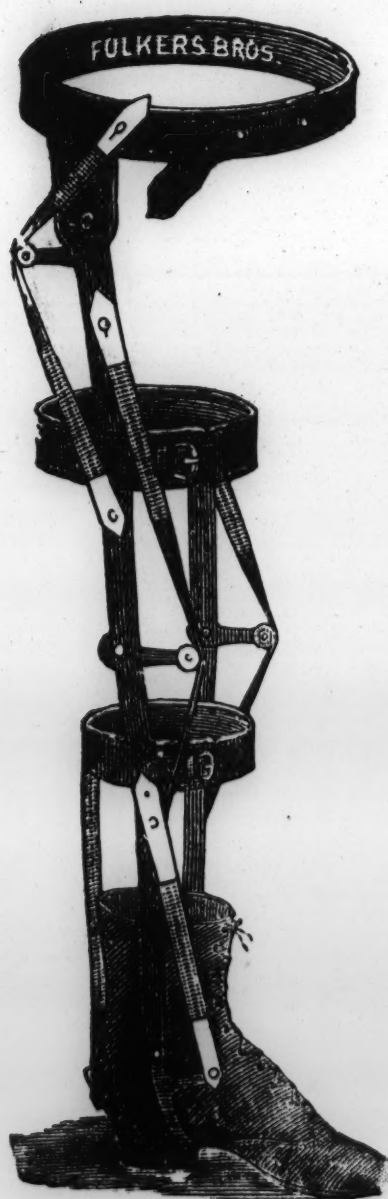
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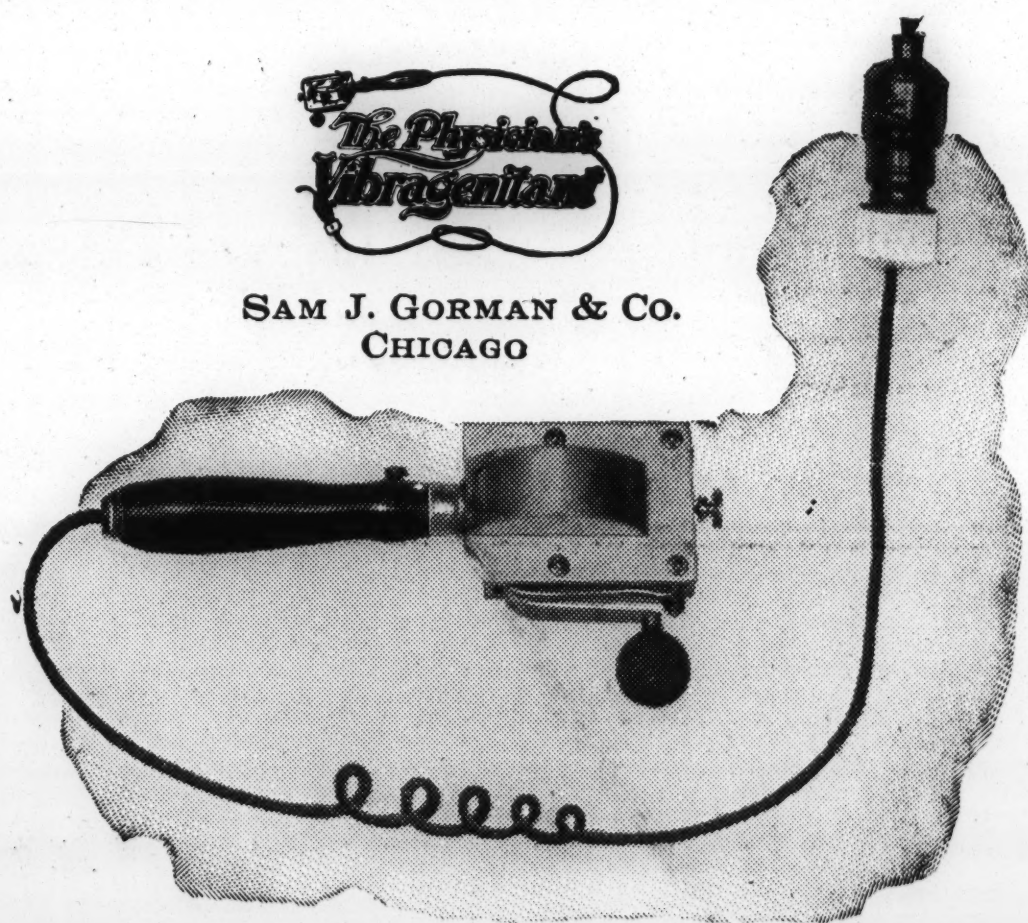
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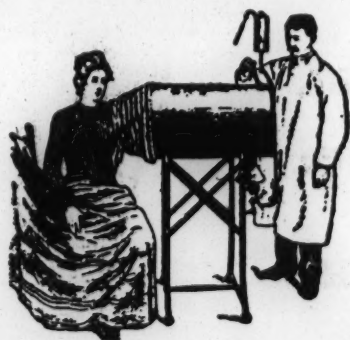


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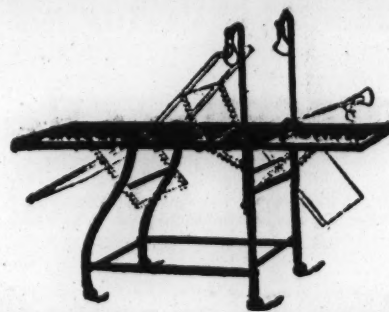


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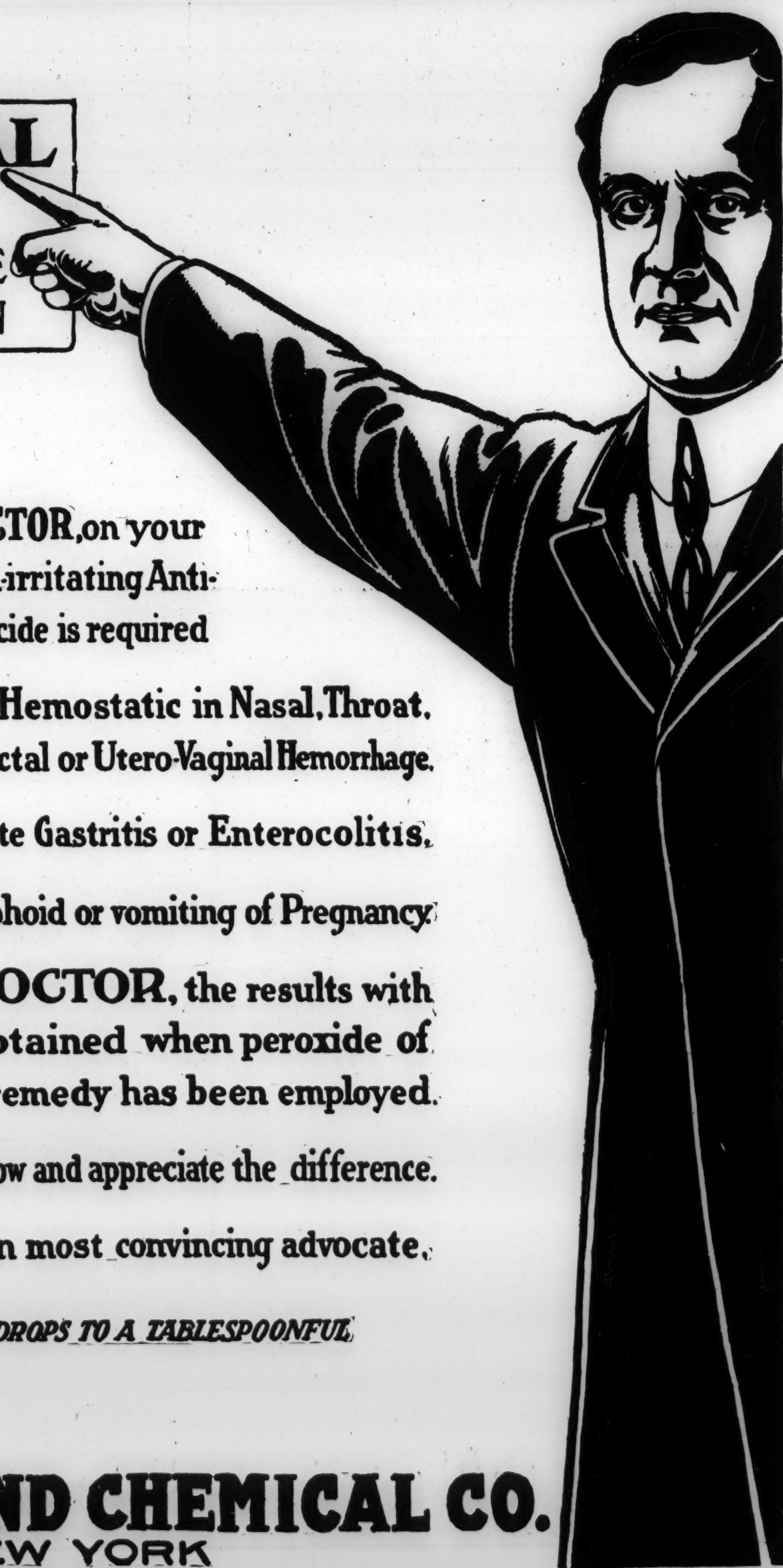
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